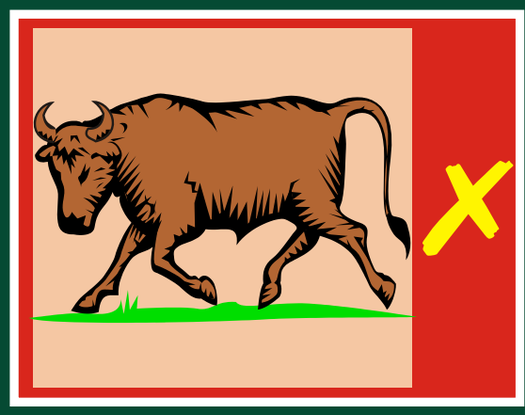
Introducing

1st time in the Global Market

a complete range of

Veg Peptones



- 100% Vegetable Protein Source
- Absolutely no risk of BSE/TSE
- Equivalent performance with bovine based peptones

100% vegetable peptones

HiVeg™ peptones

CERTIFIED ISO 9001-2000 COMPANY HIMEDIA

HIMEDIA®

For life is precious

Microbiology blossomed during a period of about 60 years referred to as the golden age of Microbiology which began in 1857 with the work of Louis Pasteur and continued into the twentieth century until the advent of world war I. During these years, numerous branches of microbiology were established and the foundations were laid for the maturing process that has led to modern

Bacteriologists Robert Koch and J. Schroeter and mycologists A. de Bary and O. Brefeld pioneered investigations of pure culture techniques for the colonial isolation of bacteria and fungi on solid media.

Peptones Identified

Naegeli carried out the very first experiments to determine the type of carbon and nitrogen sources which could be easily metabolised by bacteria and published the literature between 1879 and 1882. In these references Naegeli[1] used the term 'peptone' required for cultivation of bacteria. He described that chemo-organotrophic organisms grow best in culture media containing partially digested protein. These studies encouraged use of various animal tissue extracts prepared by crude treatments viz, boiling, hydrolysing with enzymes and acids.

Hydrolysed Proteins

Based on these published studies commercial production of protein hydrolysates started. Protein hydrolysate was the first complex culture medium ingredient to be supplied commercially.

Continued research of various enzymic and acid hydrolysates as well as infusions of animal tissues resulted in a number of growth promoting peptones. Over the years many new and improved culture media formulations have been developed which includes these animal tissue based peptones and infusions. The development of superior culture media for isolation and cultivation of pathogenic and non-pathogenic bacteria from various specimens still continues to be a major objective of microbiology. The animal protein sources so far used includes lean meat, casein, gelatin, liver, brain and heart tissues etc.

BSE/TSE Hazards & Doubts

During the past decade detection of BSE/TSE causing agents in bovine animal tissue based protein sources has caused apprehensions regarding usage of these products.

Hazards Overcome

Keeping with tradition of innovation, provision of superior products and a solution to this problem HiMedia introduces complete range of 100% vegetable peptones against each category of animal based protein sources. This literature is an attempt to give maximum details of our breakthrough concept of various vegetable peptones in a user-friendly style of HiMedia.

Reference

1. Naegeli 1880, Sitz'ber, math-physik Klasse Akad. Wiss. Muenchen. 10, 277.

HiVeg Peptone RM001V

HiVeg Peptone is an enzymic hydrolysate of vegetable proteins that gives comparable growth promoting properties as animal origin peptone.

Applications :

It is recommended for use as a culture media ingredient in variety of media as well as for commercial production of enzymes, vaccies, antibiotics and other products. It can successfully replace animal origin peptone in all culture media.

Appearance :

Frozen dew coloured, homogeneous powder having characteristic odour of protein.

Solubility :

Soluble in water, insoluble in chloroform and ether.

Reaction :

Reaction of 2% w/v aqueous solution is pH 6.6 ± 0.5 at 25°C.

Clarity :

1% w/v aqueous solution remains clear without haziness even after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Chemical Analysis :

Total Nitrogen	: Not less than 11.5%
α - Amino Nitrogen	: Not more than 5.0%
Ash	: Not less than 9.0%
Loss on drying	: Not more than 5.0%
Sodium chloride	: Not more than 5.0%

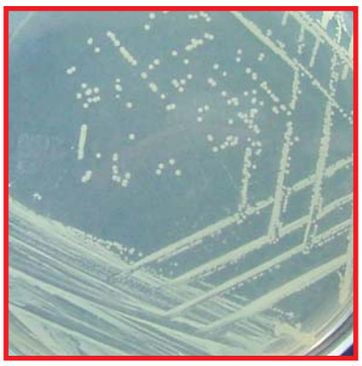
Cultural Response :

Cultural response was observed after 18-48 hours at 35-37°C in Nutrient Agar using HiVeg Peptone as an ingredient.

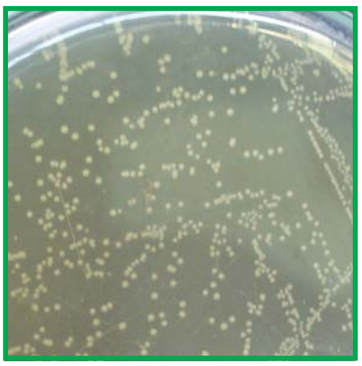
Organisms (ATCC)	Growth
E. coli (25922)	good-luxuriant
Ps. aeruginosa (27853)	good-luxuriant
S. aureus (25923)	good-luxuriant
S. pyrogenes (19615)	good-luxuriant

Storage and Shelf life :

Store below 30°C. Use before expiry date on the label.



Nutrient Agar (M001) where **Peptone (RM001)** is used as an ingredient *Staphylococcus aureus (ATCC 25923)*



HiVeg Nutrient Agar (MV001) where **HiVeg Peptone (RM001V)** is used as an ingredient. *Staphylococcus aureus (ATCC 25923)*

HiVeg Peptone No. 1 RM635V

HiVeg Peptone No. 1 is an enzymic hydrolysate of specially selected vegetable proteins.It is recommended for use in bacteriological culture media that can successfully replace meat peptones.

Applications :

It is recommended for use in general purpose culture media for routine cultivation of a variety of microorganisms. It can also be used in mass scale cultivation of microorganisms for antibiotics, enzymes, vitamins production or for other similar products of microbial origin.

Appearance :

Light yellow coloured, free flowing homogeneous powder having characteristic odour of protein.

Solubility : Soluble in water, insoluble in chloroform and ether.

Reaction : Reaction of 1% w/v aqueous solution is pH 6.6 ± 0.5 at 25°C.

Clarity :

1% w/v aqueous solution remains clear without haziness even after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Chemical Analysis :

Total Nitrogen	: Not less than 10.0%
α -Amino Nitrogen	: Not less than 3.0%
Moisture	: Not more than 5.0%
Ash	: Not more than 12.0%
Sodium chloride	: Not more than 5.0%

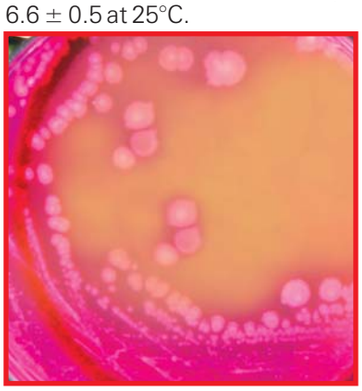
Cultural Response :

Cultural response was observed after 18-24 hours at 35-37°C in BPL Agar using HiVeg Peptone No.1 as an ingredient.

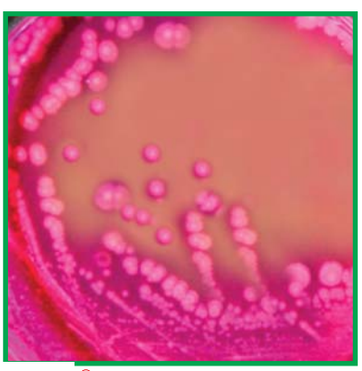
Organisms (ATCC)	Growth	Colour of colony
E. coli (25922)	good-luxuriant	yellow
S. serotype Enteritidis *(13076)*	good-luxuriant	pink-red
S. serotype Typhimurium *(14028)*	good-luxuriant	pink-red

Storage and Shelf life :

Store below 30°C. Use before expiry date on the label.



BPL Agar (M1020) where **Meat Peptone (RM635)** is used as an ingredient. *S.* serotype Typhimurium *(ATCC 14028)*



BPL Agar (M1020) prepared by using **HiVeg Peptone No. 1 (RM635V)** is an ingredient. *S.* serotype Typhimurium *(ATCC 14028)*

HiVeg Peptone No. 2 RM020V

HiVeg Peptone No. 2 is prepared under controlled conditions by enzymic digestion of vegetable proteins. It has nutritional characteristics that matches with Gelatin peptone.

Application :

It is recommended to be used in following media:
Antibiotic assay media yielding low but reliable and reproducible growth levels.
Media for fermentation studies : Purple Agar Base, Purple Broth Base, Wort Media, Sugar Free Agar, Urea Agar Base, MacConkey Agars, Violet Red Bile Agar, etc.

Appearance :

Light yellow coloured, free flowing homogeneous powder having characteristic odour but not putrescent.

Solubility :

Freely soluble in water, insoluble in alcohol.

Reaction :

Reaction of 1% w/v aqueous solution is pH 6.6 ± 0.5 at 25°C.

Clarity :

1% w/v aqueous solution remains clear without haziness even after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Chemical Analysis :

Total Nitrogen	: Not less than 11.0 %
α - Amino nitrogen	: Not less than 3.5%
Residue on ingnition	: Not more than 12.0%
Sodium chloride	: Not more than 5.0%
Loss on drying	: Not more than 5.0%

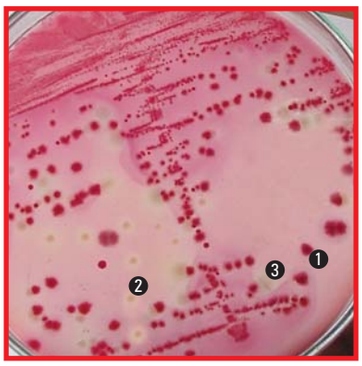
Cultural Response:

Cultural response was observed after 18-24 hours at 35-37°C in MacConkey Agar using HiVeg Peptone No. 2 as an ingredient.

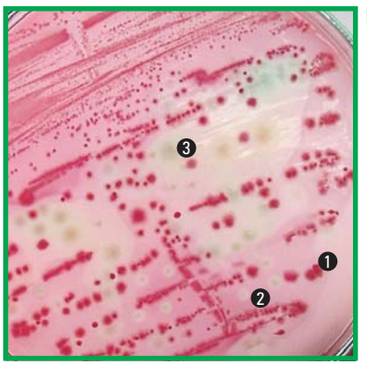
Organisms (ATCC)	Growth	Colour of colony
E. aerogenes (13048)	good-luxuriant	pink to red
E. coli (25922)	good-luxuriant	pink to red
E. faecalis (29212)	fair-good	colourless to pink
P. vulgaris (13315)	good-luxuriant	colourless
S. aureus (25923)	inhibited	—
Sh. flexneri (12022)	fair-good	colourless
S. serotype Enteritidis (13036)	good-luxuriant	colourless
S. serotype Paratyphi A	good-luxuriant	colourless
S. serotype Paratyphi B	good-luxuriant	colourless
S. serotype Typhi (6539)	good-luxuriant	colourless

Storage and Shelf life :

Store below 30°C. Use before expiry date on the label.



MacConkey Agar (M081) where **Gelatin Peptone (RM020)** is used as an ingredient.
1. *E. coli (ATCC 25922)*
2. *S.* serotype Typhi *(ATCC 6539)*
3. *P. aeruginosa (ATCC 27853)*



HiVeg MacConkey Agar (MV081) where **HiVeg Peptone No. 2 (RM020V)** is used as an ingredient.
1. *E. coli (ATCC 25922)*
2. *S.* serotype Typhi *(ATCC 6539)*
3. *P. aeruginosa (ATCC 27853)*

HiVeg Peptone No. 3 RM005V

HiVeg Peptone No. 3 is an enzymic hydrolysate of vegetable proteins and recommended for cultivation of fastidious pathogens. It can successfully replace Proteose peptone.

Applications :

It is highly nutritious and can be employed in culture media for bulk production of antibiotics, enzymes, veterinary preparations, bacterial toxins, etc. It is recommended for use in media that support good growth of a large number of microorganisms including *Staphylococci, Streptococci, Pneumococci, Meningococci, Gonococci,* among others which require a highly nutritious medium.

Appearance :

Light yellow coloured, homogeneous powder having characteristic odour of protein.

Solubility :

Soluble in water, insoluble in alcohol.

Reaction :

Reaction of 1% w/v aqueous solution is pH 6.5 ± 0.5 at 25°C.

Clarity :

1% w/v aqueous solution remains clear without haziness even after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Chemical Analysis :

Total Nitrogen	: Not less than 10.0 %
α - Amino Nitrogen	: Not less than 3.5%
Sodium chloride	: Not more than 5.0%
Ash	: Not more than 12.0%
Loss on drying	: Not more than 5.0%

Cultural Response :
Cultural response was observed after 18-24 hours at 35 - 37°C on Beef Lactose Agar where HiVeg Peptone No.3 is used as an ingredient.

Organisms (ATCC)	Growth
E. coli (25922)	good-luxuriant
S. aureus (25923)	good-luxuriant
B. cereus(10876)	good-luxuriant
B. subtilis (6633)	good-luxuriant
C. albicans (10231)	good-luxuriant

Storage and Shelf life :
Store below 30°C. Use before expiry date on the label.

HiVeg Special Peptone RM015V

HiVeg Special Peptone is manufactured under controlled conditions from vegetable proteins. It is especially adapted for the preparation of media for culturing fastidious bacteria and supports cultural characteristics comparable with Peptone special.

Applications :
It can be used for the preparation of media for cultivation of following bacteria:
Neisseria species : G C Agar Base, Thayer Martin Medium Base.
Yersinia species : Yersinia Selective Agar Base.
Staphylococci and *Streptococci* : Columbia Agar Base.
It can also be used for cultivation of other fastidious bacteria on large scale.

Appearance :
Sea mist coloured, homogeneous free flowing fine powder having characteristic but not putrescent odour.

Solubility :
Soluble in water, insoluble in alcohol.

Reaction :
Reaction of 1% w/v aqueous solution is pH 6.6 ± 0.5 at 25°C.

Clarity :
1% w/v aqueous solution remains clear without haziness even after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Chemical Analysis :

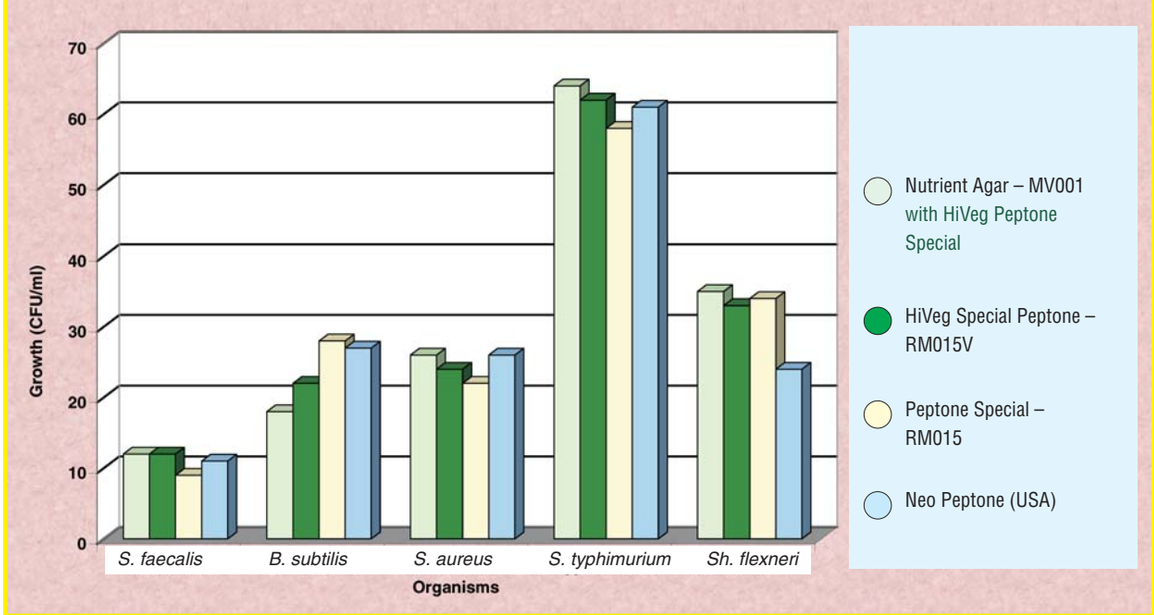
Total Nitrogen	: Not less than 11%
α - Amino Nitrogen	: Not less than 3.0%
Ash	: Not more than 12%
Sodium Chloride	: Not more than 5%
Loss on drying	: Not more than 6%

Cultural Response :
Cultural response was observed after 40 - 48 hours at 35 - 37°C in Columbia Blood Agar Base using HiVeg Special Peptone as an ingredient.

Organisms (ATCC)	Growth w/ 5% blood	Haemolysis
N. meningitidis (13090)	good-luxuriant	none
S. aureus (25923)	good-luxuriant	β or γ
S. epidermidis (12228)	good-luxuriant	γ
S. pneumoniae (6303)	good-luxuriant	α
S. pyogenes (19615)	good-luxuriant	β

Storage and Shelf life :
Store below 30°C. Use before expiry date on the label.

Comparative Data of Growth on Nutrient Agar w/ HiVeg Special Peptone



HiVeg Extract RM002V

HiVeg Extract is prepared under controlled condition by extracting vegetable proteins. It is highly nutritious and supports heavy growth of a wide variety of microorganisms. Recommended concentration for use is 0.3 - 0.5% w/v and the growth promoting properties are comparable to Beef Extract Powder.

Applications :

It can be used successfully in following culture media in place of Beef Extract:

General purpose media : Beef Extract Agar / Broth and Nutrient Agar / Broth etc.

Diagnostic media : CLED Agar, DCLS Agar, TSI Agar, Wilson Blair Agar Base, etc.

Bulk production of antibiotics, enzymes and other products.

Appearance :

Light yellow coloured, homogeneous powder having characteristic odour of protein.

Solubility :

Soluble in water, insoluble in chloroform and ether.

Reaction :

Reaction of 1% w/v aqueous solution is pH 6.6 ± 0.5 at 25°C.

Clarity :

1% w/v aqueous solution remains clear without haziness even after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Chemical Analysis :

Total Nitrogen	: Not less than 9%
α - Amino Nitrogen	: Not less than 3.0%
Ash	: Not more than 11%
Sodium Chloride	: Not more than 5%
Loss on drying	: Not more than 5%

Cultural Response :

Cultural response was observed after 18-48 hours at 35-37°C in Nutrient Agar using HiVeg Extract as an ingredient.

Organisms (ATCC)	**Growth**
E. coli (25922)	good-luxuriant
Ps. aeruginosa (27853)	good-luxuriant
S. aureus (25923)	good-luxuriant
S. pyogenes (19615)	good-luxuriant

Storage and Shelf life :

Store below 30°C. Use before expiry date on the label.

Nutrient Agar (M001) containing **Beef Extract (RM002)** as an ingredient.
S. pyogenes (ATCC 19615)

HiVeg Nutrient Agar (MV001) containing **HiVeg Extract (RM002V)** is used as an ingredient.
S. pyogenes (ATCC 19615)

HiVeg Extract No. 1 RM003V

HiVeg Extract No. 1 is prepared under controlled conditions by extracting vegetable proteins. Cultural response is comparable with Meat extract powder. 0.3 - 0.5% concentration supports the growth of fastidious organisms, when combined with suitable vegetable peptones.

Applications :

It is used as follows :

General purpose media : Standard Nutrient Media, Staphylococcus Enrichment Broth, Disinfectant Test Broth, Sterility Test Media A and B, VL Medium etc.

Diagnostic Media : Yersinia Isolation Agar, Salmonella Agar öNöZ, Inositol Brilliant Green Bile Agar, Gelatin Iron Agar, Anderson Agar Base, etc.

Bulk production of antibiotics, enzymes and other products of microbiological origin.

Appearance :

Light yellow coloured, homogeneous free flowing fine powder having characteristic odour of protein.

Solubility :

Soluble in water, insoluble in alcohol.

Reaction :

Reaction of 1% w/v aqueous solution is pH 6.6 ± 0.5 at 25°C.

Clarity :

1% w/v aqueous solution remains clear without haziness even after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Chemical Analysis :

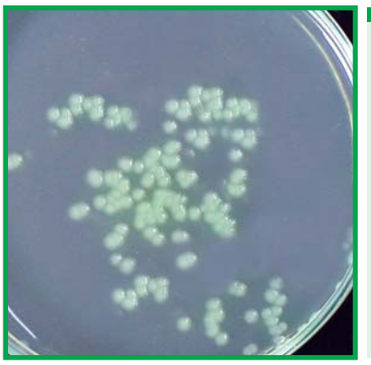
Total Nitrogen	: Not less than 11.0%
α - Amino Nitrogen	: Not less than 3.5%
Ash	: Not more than 10%
Sodium Chloride	: Not more than 5%
Loss on drying	: Not more than 5%

Cultural Response :
Cultural response was observed after 18-48 hours at 35-37°C in Sterility Testing Medium A using HiVeg Extract No. 1 as an ingredient.

Organisms (ATCC)	Growth
Ps. aeruginosa (27853)	good-luxuriant
S. aureus (25923)	good-luxuriant
S. faecalis (29212)	good-luxuriant
B. subtilis (6633)	good-luxuriant

Storage and Shelf life :
Store below 30°C. Use before expiry date on the label.

Sterility Testing Medium A (M017) containing **Meat Extract (RM003)** as a constituent.
P. aeruginosa (ATCC 27853)



Sterility Testing Medium A (M017) prepared by using **HiVeg Extract No. 1 (RM003V)** as an ingredient.
P. aeruginosa (ATCC 27853)

HiVeg Extract No. 2 RM326V

HiVeg Extract No. 2 is a specially prepared dehydrated extract of vegetable proteins. Growth response of this vegetable extract is comparable to Liver Extract powder.

Application :
It can be employed for cultivation of fastidious anaerobic bacteria such as *Brucellae* and *Clostridia* by adding to Thioglycollate media. It can also be incorporated in Blood Agar Base No. 2 for cultivation of a wide variety of pathogenic microorganisms and for bulk production of vaccines, steroids, enzymes, etc.

Appearance :
Light yellow coloured, homogeneous free flowing fine powder having characteristic odour of protein.

Solubility :
Freely soluble in water, insoluble in chloroform and ether.

Reaction :
Reaction of 1% w/v aqueous solution is pH 6.6 ± 0.5 at 25°C.

Clarity :
1% w/v aqueous solution is clear, without any haziness after autoclaving at 15 lbs pressure for 15 minutes.

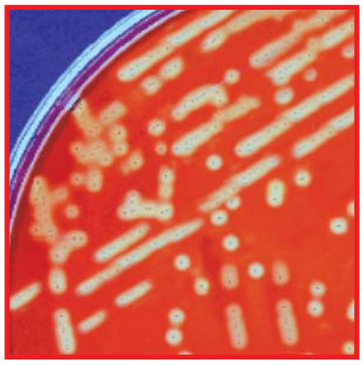
Chemical Analysis :

Total Nitrogen	: Not less than 10.0 %
α-Amino Nitrogen	: Not less than 3.5%
Sodium chloride	: Not more than 5.0%
Loss on drying	: Not more than 5.0%
Residue on ignition	: Not more than 12.0%

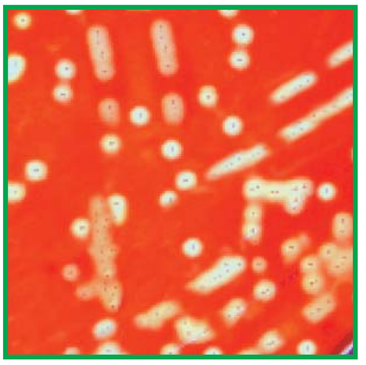
Cultural Response :
Cultural response was observed after 18-48 hours at 35-37°C in Blood Agar Base No. 2 using HiVeg Extract No. 2 as an ingredient.

Organisms (ATCC)	Growth	Haemolysis
N. meningitidis (13090)	good-luxuriant	none
S. pneumoniae (6303)	good-luxuriant	α
S. pyogenes (19615)	good-luxuriant	β
S. aureus (25923)	good-luxuriant	β

Storage and Shelf life :
Store below 30°C. Use before expiry date on the label.



Blood Agar Base No. 2 (M834) containing **Liver Extract Powder (RM326)** as a constituent.
S. pyogenes (ATCC 19615)



Blood Agar Base No. 2 (M834) prepared by using **HiVeg Extract No.2 (RM326V)** as an ingredient.
S. pyogenes (ATCC 19615)

HiVeg Hydrolysate RM014V

HiVeg Hydrolysate is prepared by enzymic hydrolysis of vegetable proteins to suit cultural response comparable with Tryptone (Milk Protein).

Application :

Recommended for the cultivation of a wide variety of organisms for indole production and fermentation studies.

Appearance :

Light yellow coloured, homogeneous free flowing fine powder having characteristic but not putrescent odour.

Solubility :

Soluble in water, insoluble in chloroform and ether.

Reaction :

Reaction of 1% w/v aqueous solution is pH 6.5 ± 0.5 at 25°C.

Clarity :

1% w/v aqueous solution remains clear without haziness even after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Chemical Analysis :

Total Nitrogen	: Not less than 12%
α - Amino Nitrogen	: Not less than 3.0%
Ash	: Not more than 10%
Sodium Chloride	: Not more than 5%
Loss on drying	: Not more than 5%

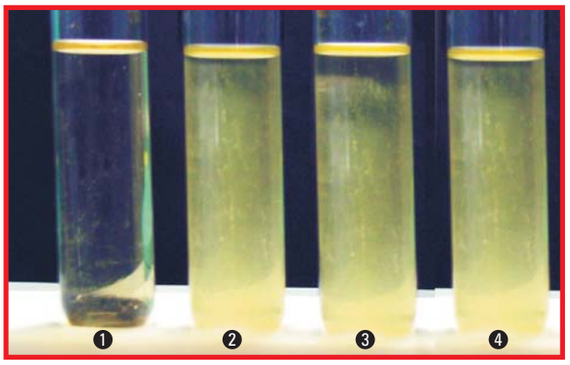
Cultural Response :

Cultural response was observed after 18-48 hours at 35-37°C in Soyabean Casein Digest Medium using HiVeg Hydrolysate as an ingredient.

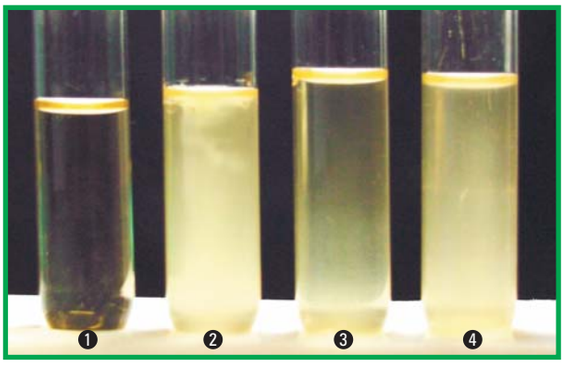
Organisms (ATCC)	**Growth**
C. albicans (10231)	good-luxuriant
S. aureus (25923)	good-luxuriant
S. pyogenes (19615)	good-luxuriant
B. subtilis (6633)	good-luxuriant
B. vulgatus (8482)	good-luxuriant
N. meningitides (13090)	good-luxuriant

Storage and Shelf life :

Store below 30°C. Use before expiry date on the label.



Soyabean Casein Digest Medium (M011) where **Tryptone (RM014)** is an ingredient.
1. Control
2. *S. aureus (ATCC 25923)*
3. *S. pyogenes (ATCC 19615)*
4. *C. albicans (ATCC 10231)*



HiVeg Soyabean Digest Medium (MV011) prepared by using **HiVeg Hydrolysate (RM014V)** as an ingredient.
1. Control
2. *S. aureus (ATCC 25923)*
3. *S. pyogenes (ATCC 19615)*
4. *C. albicans (ATCC 10231)*

HiVeg Hydrolysate No. 1 RM030V

HiVeg Hydrolysate No. 1 is specially prepared enzymic hydrolysate of vegetable proteins that can successfully replace Tryptose (Milk Protein).

Application :

It can be used in following media:

Tryptose Media : for cultivation of fastidious microorganisms and for preparing Blood Agars.

HiVeg hydrolysate No. 1 aids in maintaining blood cells in excellent state, thus haemolytic reactions can be easily demonstrated.

Vaccine Preparation Media : for rapid and luxuriant growth as desired for large scale manufacturing of vaccines and toxins.

Appearance :

Light yellow coloured, homogeneous free flowing powder having characteristic odour of protein.

Solubility :

Soluble in water, insoluble in chloroform and ether.

Reaction :

Reaction of 1% w/v aqueous solution is pH 6.6 ± 0.5 at 25°C.

Clarity :

1% w/v aqueous solution remains clear without haziness even after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Chemical Analysis :

Total Nitrogen	: Not less than 10.0%
α - Amino Nitrogen	: Not less than 3.0%
Sodium chloride	: Not more than 5.0%
Loss on drying	: Not more than 5.0%
Residue on ignition	: Not more than 5.0%

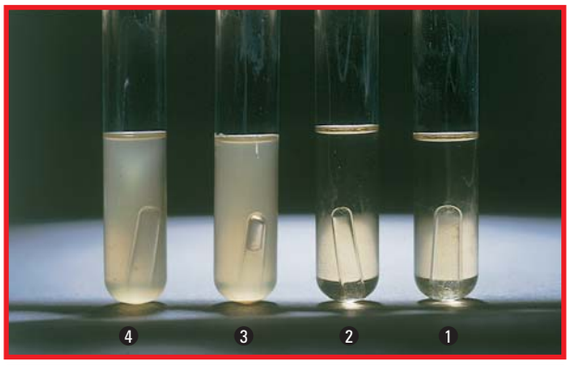
Cultural Response :

Cultural response was observed after 18-24 hours at 35-37°C in Lauryl Tryptose Broth where HiVeg Hydrolysate No.1 is used as an ingredient.

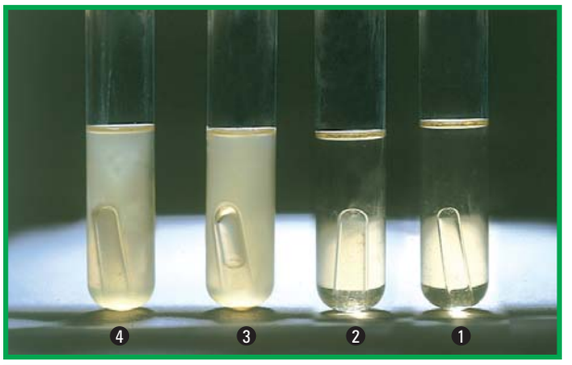
Organisms (ATCC)	Growth	Gas Production	Indole (44°C)
E. aerogenes (13048)	luxuriant	+	–
E. coli (25922)	luxuriant	+	+
E. faecalis (29212)	inhibited	–	–
S. aureus (25923)	inhibited	–	–
S. serotype Typhimurium (14028)	luxuriant	–	–

Storage and Shelf life :

Store below 30°C. Use before expiry date on the label.



Lauryl Tryptose Broth (M080) containing **Tryptose (RM030)** as a constituent.
1. Control
2. *E. faecalis (ATCC 29212)*
3. *E. coli (ATCC 25922)*
4. *E. aerogenes (ATCC 13048)*



Lauryl Tryptose Broth (M080) prepared by using **HiVeg Hydrolysate No. 1 (RM030V)** as a constituent.
1. Control
2. *E. faecalis (ATCC 29212)*
3. *E. coli (ATCC 25922)*
4. *E. aerogenes (ATCC 13048)*

HiVeg Hydrolysate No. 2 RM023V

HiVeg Hydrolysate No. 2 is an enzymic digest of vegetable proteins and contains highly nutritive ingredients required for cultivation of nutritionally demanding microorganisms.

Growth response of this hydrolysate is comparable with Liver hydrolysate.

Applications :

Due to high nutritivity it is an ideal ingredient of culture media employed for cultivation of fastidious anaerobic bacteria such as *Clostridia, Bacteroides* and *Brucellae*. It can also be recommended for large scale cultivation of these bacteria for the purpose of vaccine production.

Appearance :

Light yellow coloured, homogeneous free flowing, fine powder having characteristic odour of protein.

Solubility :

Freely soluble in water, insoluble in chloroform and ether.

Reaction :

Reaction of 1% w/v aqueous solution is pH 6.6 ± 0.5 at 25°C.

Clarity :

1% w/v aqueous solution remains clear without any haziness after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Chemical Analysis :

Total Nitrogen	: Not less than 11.0 %
α - Amino Nitrogen	: Not less than 3.0%
Loss on drying	: Not more than 5.0%
Residue on ignition	: Not more than 12.0%
Sodium chloride	: Not more than 5.0%

Cultural Response :

Cultural response was observed after 24-48 hours at 35-37°C in Liver Infusion Agar using HiVeg Hydrolysate No.2 as an ingredient.

Organisms (ATCC)	Growth
B. abortus (4315)	good-luxuriant
B. suis (4314)	good-luxuriant
B. melintensis (4309)	good-luxuriant
S. pneumoniae (6303)	good-luxuriant

Storage and Shelf life :

Store below 30°C. Use before expiry date on the label.

HiVeg Acid Hydrolysate RM013V

HiVeg Acid Hydrolysate is an acid hydrolysate of vegetable proteins suitable for use in culture media requiring amino acid mixture. It's growth promotional characteristics matches with Casein Acid Hydrolysate.

Applications :

It can be used for preparing Antibiotic Sensitivity Test Media including Mueller Hinton Agar, in media requiring quantitative addition of tryptophan, in vaccine preparation media as a source of high concentration of free amino acids.

Appearance :

Yellow coloured, homogeneous free flowing fine powder having characteristic odour of protein.

Solubility :

Freely soluble in water, insoluble in alcohol and ether.

Reaction :

Reaction of 1% w/v aqueous solution is pH 6.0 ± 0.5 at 25°C.

Clarity :

1% w/v aqueous solution remains clear without haziness even after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Chemical Analysis :

Total Nitrogen	: Not less than 6.0%
α - Amino nitrogen	: Not less than 3.0%
Sodium chloride	: Not more than 40.0%
Ash	: Not more than 44.0%
Loss on drying	: Not more than 5.0%

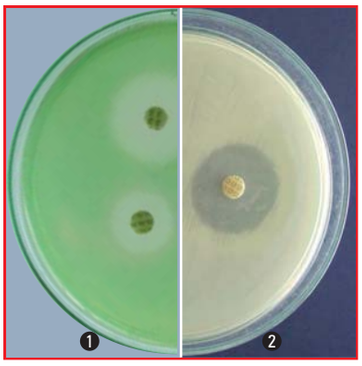
Cultural Response:

Cultural response was observed after 18-24 hours at 35-37°C on Mueller Hinton Agar using HiVeg Acid Hydrolysate as an ingredient.

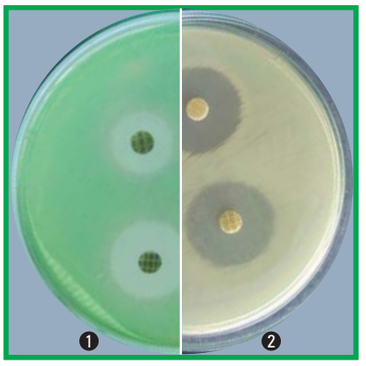
Organisms (ATCC)	**Growth**
E. coli (25922)	good-luxuriant
E. faecalis (19433)	good-luxuriant
H. influenzae (35056)	good-luxuriant
N. gonorrhoeae (19424)	good-luxuriant
P. aeruginose (27853)	good-luxuriant
S. aureus (25923)	good-luxuriant

Storage and Shelf life :

Store below 30°C. Use before expiry date on the label.



Mueller Hinton Agar (M173) containing **Casein Acid Hydrolysate (RM013)** as an ingredient.
1. *P. aeruginosa (ATCC 27853)*
2. *S. aureus (ATCC 25923)*



HiVeg Mueller Hinton Agar (MV173) where **HiVeg Acid Hydrolysate (RM013V)** is used as an ingredient.
1. *P. aeruginosa (ATCC 27853)*
2. *S. aureus (ATCC 25923)*

HiVeg Infusion Powder RM191V

HiVeg Infusion is dehydrated infusion obtained from vegetable proteins under controlled conditions. Growth supporting properties of this infusion is comparable with Heart Infusion Powder.

Applications :

It can be used in media employed for cultivation of fastidious organisms like *Brucella, Mycoplama, Pneumococci, Gonococci, Maningococci, Actinomycetes*, fungi, etc. and antibiotic sensitivity test. It can also be used in large scale cultivation of microorganisms for the preparation of vaccines and for preparation of Blood Agar Bases.

Appearance :

Light yellow coloured, homogeneous powder having characteristic odour of protein.

Solubility :

Freely soluble in water, insoluble in chloroform and ether.

Reaction :

Reaction of 1% w/v aqueous solution is pH 6.6 ± 0.5 at 25°C.

Clarity :

1% w/v aqueous solution is clear, without any haziness after autoclaving at 15 lbs pressure for 15 minutes.

Chemical Analysis :

Total Nitrogen	: Not less than 11.0 %
α - Amino Nitrogen	: Not less than 3.0%
Sodium chloride	: Not more than 5.0%
Loss on drying	: Not more than 5.0%
Residue on ignition	: Not more than 12%

Cultural Response :
Cultural response was observed after 18-48 hours at 35-37°C on Heart Infusion Agar using HiVeg Infusion powder as an ingredient.

Organisms (ATCC)	Growth	w/ 5% Sheep Blood	Haemolysis
S. aureus (25923)	good-luxuriant	luxuriant	β
N. meningitidis (13090)	good-luxuriant	luxuriant	none
S. pneumoniae (6303)	good-luxuriant	luxuriant	α
S. pyogenes (19615)	good-luxuriant	luxuriant	β

Storage and Shelf life :
Store below 30°C. Use before expiry date on the label.

Heart Infusion Agar (M169) containing **Heart Infusion (RM191)** as an ingredient.
S. pyogenes (ATCC 19615)

Heart Infusion Agar (M169) prepared by using **HiVeg Infusion Powder (RM191V)** as an ingredient.
S. pyogenes (ATCC 19615)

HiVeg Special Infusion RM188V

HiVeg Special Infusion is dehydrated infusion obtained from vegetable proteins under controlled conditions. It is highly nutritious and has growth supporting properties comparable with Brain Heart Infusion Powder.

Applications :
Being highly nutritious it is employed in number of media for cultivation of highly fastidious microorganisms such as in Brain Heart Infusion Agar/Broth, Brain Heart CC Agar, SABHI Agar Base, etc. to grow *Staphylococci, Streptococci, Haemophilus* and *Neisseria* species and pathogenic fungi.

Appearance :
Light yellow coloured, homogeneous free flowing, fine powder having characteristic odour of protein.

Solubility :
Freely soluble in water, insoluble in chloroform and ether.

Reaction :
Reaction of 1% w/v aqueous solution is pH 6.6 ± 0.5 at 25°C.

Clarity :
1% w/v aquoeus solution is clear, without any haziness after autoclaving at 121°C for 15 minutes.

Chemical Analysis :

Total Nitrogen	: Not less than 11.0 %
α - Amino Nitrogen	: Not less than 3.5%
Sodium chloride	: Not more than 5.0%
Loss on drying	: Not more than 5.0%
Residue on ignition	: Not more than 12.0%

Cultural Response :
Cultural response was observed after 18-24 hours at 35-37°C in Brain Heart Infusion Agar using HiVeg Special Infusion as an ingredient.

Organisms (ATCC)	Growth
E. coli (25922)	luxuriant
S. flexneri (12022)	luxuriant
S. pneumoniae(6303)	luxuriant
S. aureus (25923)	luxuriant
C. albicans (26790)	luxuriant

Storage and Shelf life :
Store below 30°C. Use before expiry date on the label.

Brain Heart Infusion Agar (M211) where **Brain Heart Infusion (RM188)** is used as an ingredient.
C. albicans (ATCC 26790)

Brain Heart Infusion Agar (M211) prepared by using **HiVeg Special Infusion (RM188V)** as an ingredient.
C. albicans (ATCC 26790)

Soya Peptone RM007

Soya Peptone a plant peptone is the soluble end product of the enzymic digestion of soyabean meal by papain. Soya peptone complies with the specification prescribed for papaic digest of soyabean meal by the U.S. Pharmacopeia (1).

Applications :

It is recommended in media that are required to support a shorter lag phase and smaller generation time to allow rapid luxuriant growth. Because of the stimulatory properties associated with soya peptone, it is ideally recommended as a growth stimulant for the cultivation of difficult and fastidious microorganisms. However, high carbohydrate content of it precludes its use in media intended for diagnostic work involving specific sugars and fermentable carbohydrates.

It is recommended in following media.

Eugonic Agar/Broth : for cultivation of fastidious microorganisms.

Thioglycollate media : for cultivation of anaerobic, nutritionally difficult microorganisms.

Tryptone Soya media : for general purpose examination of sanitary / hygienic importance.

Fungal media : for general purpose cultivation of fungi yeasts and moulds.

Appearance :

Light yellow coloured, homogeneous free flowing powder.

Solubility :

Freely soluble in water, insoluble in chloroform and ether.

Reaction :

Reaction of 1% w/v aqueous solution is pH 6.4 ± 0.5 at 25°C.

Clarity :

1% w/v aqueous solution is clear, without any haziness after autoclaving at 121°C for 15 minutes.

Chemical Analysis :

Total nitrogen	: Not less than 9.0%
α - Amino nitrogen	: Not less than 1.8%
Moisture	: Not more than 5.0%
Ash	: Not more than 22.0%
Sodium chloride	: Not more than 5.0%
Carbohydrates	: Not more than 32.0%

Cultural Response :

Cultural response observed after 18-48 hours at 37°C by preparing Soyabean Casein Digest Medium where Soya Peptone was used as an ingredient.

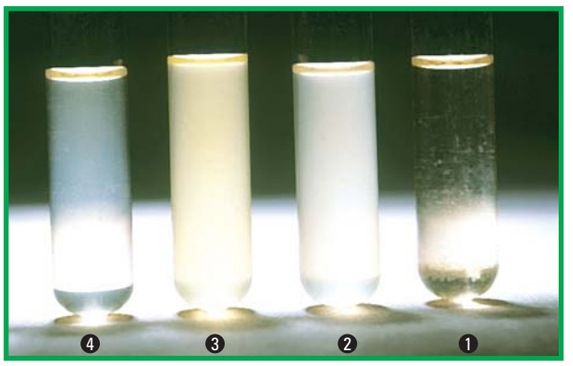
Organisms (ATCC)	Growth
Asp. niger (16404)	good-luxuriant
B. subtilis (6633)	luxuriant
B. vulgaris (8482)	luxuriant
C. albicans (10231)	good-luxuriant
C. faecalis (29212)	good-luxuriant
N. meningitidis (14632)	luxuriant
P. vulgaris (13315)	good-luxuriant
P. aeruginosa (27853)	good-luxuriant
S. serotype Typhi *(6539)*	good-luxuriant
S. cerevisiae (9763)	good-luxuriant
S. flexneri (12022)	good-luxuriant
S. aureus (25923)	good-luxuriant
S. pyogenes (19615)	good-luxuriant

Reference :

1. United States Pharmacopeia, 1985, 21st Rev., U.S. Pharmacopeial Convention, Inc., Rockville, MD.

Storage and Shelf-life :

Store below 30°C. Use before expiry date on the label.



Soyabean Casein Digest Medium (M011) containing **Soya Peptone (RM007)** as a constituent.

1. Control
2. *S. aureus (ATCC 25923)*
3. *S. pyogenes (ATCC 19615)*
4. *C. albicnas (ATCC 10231)*

Yeast Autolysate RM194

Yeast Autolysate is prepared by drying the extract from autolysing yeast cells (*Saccharomyces*) specially cultivated for this purpose. It is rich in vitamins and other nutritive substances such as free amino acids.

Applications :

It is rich in vitamins, especially those belonging to B complex and is often used to supply these factors in culture media at a concentration of 0.3 to 0.5%.

It is especially used to supplement media employed for cultivation of *Neisseriae*.

Appearance :

Brownish yellow coloured, homogeneous free flowing powder.

Solubility :

Freely soluble in water, insoluble in chloroform and ether.

Reaction :

Reaction of 1% w/v aqueous solution is pH 6.5 ± 0.5 at 25°C.

Clarity :

1% w/v aqueous solution is clear, without any haziness after autoclaving at 121°C for 15 minutes.

Chemical Analysis :

Total nitrogen	: Not less than 11.5%
α - Amino nitrogen	: Not less than 3.5%
Moisture	: Not more than 5.0%
Ash	: Not more than 15.0%
Sodium chloride	: Not more than 5.0%
Vitamin content	: Average mcg/g
Thiamine (B1)	: 30
Riboflavine (B2)	: 70
Pyridoxine (B6)	: 29
Niacin	: 600
Pantothenic acid	: 95
Folic acid	: 30
Biotin	: 1.4

Cultural Response :

Cultural response observed after 24-48 hours at 37°C in Plate Count Agar where Yeast Extract was used as an ingredient.

Organisms (ATCC)	Growth
E. coli (25922)	luxuriant
K. pneumoniae (13883)	luxuriant
L. leichmannii (4797)	luxuriant
S. aureus (25923)	luxuriant
S. pyogenes (19615)	luxuriant

Storage and Shelf-life:

Store below 30°C. Use before expiry date on the label.

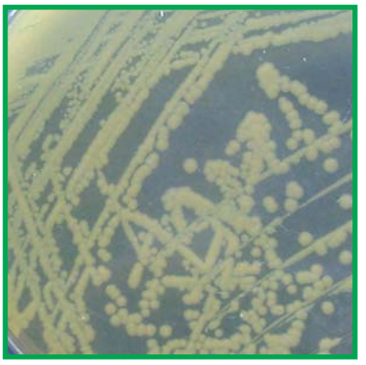


Plate Count Agar (M091) containing **Yeast Autolysate (RM194)** as an ingredient.
E. coli (ATCC 25922)

Yeast Extract Powder RM027

Yeast Extract Powder is prepared by drying the extract obtained from yeast cells (*Saccharomyces*) specially cultivated for this purpose. It is manufactured under controlled conditions to retain its vitamin content and other nutritive values such as free amino acids.

Applications :

It is rich in vitamins, especially those belonging to B complex and is often used to supply these factors in culture media at a concentration of 0.3 - 0.5%. It is either used with beef extract or in place of beef extract.

It is particularly used in media for cultivation of microorganisms encountered in milk or other dairy products.

Appearance :

Brownish yellow coloured, homogeneous free flowing powder.

Solubility :

Soluble in water, insoluble in chloroform and ether.

Reaction :

Reaction of 1% w/v aqueous solution is pH 6.6 ± 0.5 at 25°C.

Clarity :

1% w/v aqueous solution is clear, without any haziness after autoclaving at 121°C for 15 minutes.

Chemical Analysis :

Total nitrogen	: Not less than 10.5%
α - Amino nitrogen	: Not less than 3.8%
Moisture	: Not more than 5.0%
Ash	: Not more than 15.0%
Sodium chloride	: Not more than 5.0%
Vitamin content	: Average mcg/g
Thiamine (B1)	: 21
Riboflavine (B2)	: 50
Pyridoxine (B6)	: 24
Niacin	: 300
Pantothenic acid	: 90
Folic acid	: 20
Biotin	: 1.0

Cultural Response :

Cultural response observed after 24-48 hours at 37°C in Plate Count Agar where Yeast Extract was used as an ingredient.

Organisms (ATCC)	Growth
E. coli (25922)	luxuriant
K. pneumoniae (13883)	luxuriant
L. leichmannii (4797)	luxuriant
S. aureus (25923)	luxuriant
S. pyogenes (19615)	luxuriant

Storage and Shelf-life:

Store below 30°C. Use before expiry date on the label.

Plate Count Agar (M091) where **Yeast Extract Powder (RM027)** is used as an ingredient.
E. coli (ATCC 25922)

Equivalent Vegetable Peptones To Animal Based Peptones

Vegetable Based Peptones		Animal Based Peptones	
Code No.	**Vegetable Based Product**	**Code No.**	**Animal Based Product**
RM001V	HiVeg Peptone	RM001	Peptone
RM002V	HiVeg Extract	RM002	Beef Extract
RM015V	HiVeg Special Peptone	RM015	Peptone Special
RM005V	HiVeg Peptone No. 3	RM005	Proteose Peptone
RM635V	HiVeg Peptone No. 1	RM635	Meat Peptone
RM014V	HiVeg Hydrolysate	RM014	Tryptone
RM013V	HiVeg Acid Hydrolysate	RM013	Casein Acid Hydrolysate
RM030V	HiVeg Hydrolysate No. 1	RM030	Tryptose
RM003V	HiVeg Extract No. 1	RM003	Meat Extract
RM191V	HiVeg Infusion	RM191	Heart Infusion
RM188V	HiVeg Special Infusion	RM188	Brain Heart Infusion
RM020V	HiVeg Peptone No. 2	RM020	Gelatin Peptone
RM326V	HiVeg Extract No. 2	RM326	Liver Extract Powder
RM023V	HiVeg Hydrolysate No. 2	RM023	Liver Hydrolysate

In addition to these HiMedia already have regular non-animal source raw materials as under:

RM007	Soya peptone
RM025	Yeast extract paste
RM027	Yeast extract powder
RM668	Yeast extract powder type I
RM194	Yeast hydrolysate

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